

## Title (en)

INFRARED IMAGING ELEMENT AND AIR CONDITIONER EQUIPPED WITH SAME

## Title (de)

INFRAROTBILDGEBUNGSELEMENT UND DAMIT AUSGERÜSTETE KLIMAANLAGE

## Title (fr)

ÉLÉMENT D'IMAGERIE INFRAROUGE ET CLIMATISEUR ÉQUIPÉ D'UN TEL ÉLÉMENT

## Publication

**EP 3806452 A4 20210825 (EN)**

## Application

**EP 19814426 A 20190128**

## Priority

- JP 2018108943 A 20180606
- JP 2019002646 W 20190128

## Abstract (en)

[origin: EP3806452A1] A thermal infrared imaging element includes: a pixel array unit (100) that includes a plurality of temperature detection pixels (3) each of which includes a diode (1) and generates an electric signal in accordance with infrared rays received from an outside, the temperature detection pixels being arrayed in a two-dimensional fashion in a row and column directions; a plurality of drive lines (12) that are provided in rows and that commonly connect one ends of the temperature detection pixels (3) in units of the rows; a plurality of signal lines (13) that are provided in columns and that commonly connect the other ends of the temperature detection pixels (3) in units of the columns; a vertical scanning circuit (4) that sequentially selects the drive lines; a signal line selection circuit (6) that sequentially selects the signal lines; and one or more read circuits (7) that amplify an electric signal from a temperature detection pixel connected to both one of the drive lines which is selected by the vertical scanning circuit and one of the signal lines which is selected by the signal line selection circuit. The number of the read circuits (7) is smaller than the number of the signal lines provided in the respective columns.

## IPC 8 full level

**H04N 5/378** (2011.01); **G01J 1/02** (2006.01); **G01J 1/42** (2006.01); **H01L 27/146** (2006.01); **H04N 5/33** (2006.01); **H04N 5/341** (2011.01)

## CPC (source: EP US)

**F24F 11/30** (2018.01 - US); **F24F 11/88** (2018.01 - US); **G01J 5/0025** (2013.01 - EP US); **G01J 5/064** (2022.01 - EP); **G01J 5/0853** (2013.01 - EP); **G01J 5/10** (2013.01 - US); **G01J 5/20** (2013.01 - EP); **H04N 5/33** (2013.01 - US); **H04N 23/20** (2023.01 - EP); **H04N 25/75** (2023.01 - US); **H04N 25/78** (2023.01 - EP); **F24F 11/88** (2018.01 - EP); **F24F 2120/10** (2018.01 - EP); **F24F 2120/12** (2018.01 - US); **G01J 2005/0077** (2013.01 - EP US)

## Citation (search report)

- [XYI] WO 2017183260 A1 20171026 - MITSUBISHI ELECTRIC CORP [JP] & EP 3447461 A1 20190227 - MITSUBISHI ELECTRIC CORP [JP]
- [Y] EP 2239937 A2 20101013 - SONY CORP [JP]
- [Y] US 2012228506 A1 20120913 - HONDA HIROTO [JP], et al
- [Y] JP 2012026925 A 20120209 - MITSUBISHI ELECTRIC CORP
- [Y] JP H05187682 A 19930727 - MITSUBISHI ELECTRIC CORP
- See also references of WO 2019234966A1

## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## Designated extension state (EPC)

BA ME

## DOCDB simple family (publication)

**EP 3806452 A1 20210414**; **EP 3806452 A4 20210825**; CN 112204953 A 20210108; CN 112204953 B 20230808; JP 6661061 B1 20200311; JP WO2019234966 A1 20200618; US 12007137 B2 20240611; US 2021190366 A1 20210624; WO 2019234966 A1 20191212

## DOCDB simple family (application)

**EP 19814426 A 20190128**; CN 201980036494 A 20190128; JP 2019002646 W 20190128; JP 2019548343 A 20190128; US 201916981674 A 20190128